

CLAIMS:

1. (Currently amended) A method, implemented on a computer system, of handling user-defined options during a copy and paste operation or a cut and paste operation within a multi dimensional electronic spreadsheet [(200)] comprising a plurality of cells identified by a cell address along each dimension, said method comprising the steps of:

processing a first user input, wherein the first user input defines defining one or a plurality of option combinations, each option combination comprising one or a plurality of options, wherein each option in the plurality of options has an associated identifier and an associated value;

accessing, in the computer system, the multidimensional electronic spreadsheet, wherein the multidimensional electronic spreadsheet includes at least one cell that references an identifier of at least one option of the plurality of options;

processing a second user input, wherein the second user input selects defining a first source cell range of the multidimensional electronic spreadsheet and a destination cell range of the multidimensional electronic spreadsheet;

processing a third user input identifying defining an operation to execute, wherein the operation to execute is either a copy and paste operation, or a cut and paste operation; and

performing the identified operation, wherein performing the identified operation comprises:

analyzing the first source cell range, for each defined option combination comprising one or a plurality of options, to determine if at least one cell in the first source cell range comprises a reference to said one or more options of the plurality of options of the defined option combination[.]; and

for each option combination in which the first source cell range has at least one cell that references one or more options of the plurality of options of the defined option combination, performing the following operations:

computing [[the]] a content of each cell within the first source cell range to thereby generate a second source cell range, wherein contents of the at least one cell are computed according to [[said]] the referenced one or more options of

the plurality of options based on a corresponding value associated with the referenced one or more options defined in a current option combination;
creating a version instance of the destination cell range in the multidimensional electronic spreadsheet; and
copying the second source range of cells into [[said]] the version instance[[;]] and
~~when the last option combination is copied, clearing the source cell range if the operation is cut and paste;~~
~~wherein each of said options is defined as a Boolean variable, which can be set as "True" or "False," and impact the content of a cell within an electronic spreadsheet.~~

2. (Currently amended) The method according to claim 1 ~~comprising the further steps of: , wherein processing the first user input comprises~~ assigning a name for each defined option combination of options; naming the, and wherein a version instance associated with the option combination is named using [[with]] the defined option combination name.

3. (Currently amended) The method according to claim 1, further comprising the preliminary steps of:
defining each option of the plurality of options as a Boolean variable in an options data structure; and
referencing [[said]] at least one [[or]] option of the plurality of Boolean variables options in one or a plurality of cells of the multidimensional electronic spreadsheet.

4-5. (Canceled)

6. (Currently amended) The method according to claim 1, wherein one or more of said steps are executed the first user input, the second user input, or the third user input are received in the computer system by means of an interactive user interface.

7. (Currently amended) The method according to claim 6, wherein [[said]] the interactive user interface comprises:

a dialog box~~[[;]]~~ displayed on a screen ~~[[(106);]]~~ of ~~[[a]] the~~ computer system ~~[[(100)]]~~.

8-9. (Canceled)

10. (New) The method of claim 1, further comprising:

outputting an interactive user interface through which the first user input is received, wherein the interactive user interface including a first portion for displaying a listing of defined options that are able to be referenced in cells of the multidimensional electronic spreadsheet, and a second portion for specifying option combinations by specifying values for a plurality of the defined options in the first portion.

11. (New) The method of claim 1, wherein each of the options is defined as a Boolean variable whose value can be set as "True" or "False," and wherein values of the options impact contents of cells within the multidimensional electronic spreadsheet when the cells reference the options.

12. (New) The method of claim 11, wherein if an option has a value of "True," the option is represented as a numerical "1" in contents of cells within the multidimensional electronic spreadsheet that reference the option, and wherein if an option has a value of "False," the option is represented as a numerical "0" in contents of cells within the multidimensional electronic spreadsheet that reference the option.

13. (New) The method of claim 3, wherein referencing at least one option of the plurality of options in one or a plurality of cells of the multidimensional electronic spreadsheet comprises:

selecting a cell from the plurality of cells of the multidimensional electronic spreadsheet; and

outputting an interactive user interface for applying one or more options of the plurality of options to the selected cell, wherein the interactive user interface includes a field for specifying an option to apply to the selected cell and a field for identifying a logical operation for applying the specified option to the selected cell.

14. (New) The method of claim 13, wherein the logical operation is selected from the set of logical operations including an Add logical operation meaning that the specified option is applied with an additive effect, a Multiply logical operation meaning that the specified option is applied with a multiplicative effect, and an Or logical operation meaning that the specified option is applied with an exclusive effect.

15. (New) A system, comprising:

a processor; and

a memory coupled to the processor, wherein the memory contains instructions which when executed by the processor, cause the processor to:

process a first user input, wherein the first user input defines one or a plurality of option combinations, each option combination comprising a plurality of options, wherein each option in the plurality of options has an associated identifier and an associated value;

access, in the computer system, a multidimensional electronic spreadsheet, wherein the multidimensional electronic spreadsheet includes at least one cell that references an identifier of at least one option of the plurality of options;

process a second user input, wherein the second user input selects a first source cell range of the multidimensional electronic spreadsheet and a destination cell range of the multidimensional electronic spreadsheet;

process a third user input identifying an operation to execute, wherein the operation to execute is either a copy and paste operation, or a cut and paste operation; and

perform the identified operation, wherein performing the identified operation comprises:

analyzing the first source cell range, for each defined option combination, to determine if at least one cell in the first source cell range comprises a reference to one or more options of the plurality of options of the defined option combination; and

for each option combination in which the first source cell range has at least one cell that references one or more options of the plurality of options of the defined option combination, performing the following operations:

computing a content of each cell within the first source cell range to thereby generate a second source cell range, wherein contents of the at least one cell are computed according to the referenced one or more options of the plurality of options based on a corresponding value associated with the referenced one or more options defined in a current option combination;

creating a version instance of the destination cell range in the multidimensional electronic spreadsheet; and

copying the second source range of cells into the version instance.

16. (New) The system according to claim 15, wherein the instructions further cause the processor to assigning a name for each defined option combination, and wherein a version instance associated with the option combination is named using the defined option combination name.

17. (New) The system according to claim 15, wherein the instructions further cause the processor to:

define each option of the plurality of options as a Boolean variable in an options data structure; and

reference at least one option of the plurality of options in one or a plurality of cells of the multidimensional electronic spreadsheet.

18. (New) The system according to claim 15, wherein one or more of the first user input, the second user input, or the third user input are received in the computer system by means of an interactive user interface.

19. (New) The system of claim 15, wherein the instructions further cause the processor to:

output an interactive user interface through which the first user input is received, wherein the interactive user interface including a first portion for displaying a listing of defined options that are able to be referenced in cells of the multidimensional electronic spreadsheet, and a second portion for specifying option combinations by specifying values for a plurality of the defined options in the first portion.

20. (New) The system of claim 15, wherein each of the options is defined as a Boolean variable whose value can be set as "True" or "False," and wherein values of the options impact contents of cells within the multidimensional electronic spreadsheet when the cells reference the options.

21. (New) The system of claim 20, wherein if an option has a value of "True," the option is represented as a numerical "1" in contents of cells within the multidimensional electronic spreadsheet that reference the option, and wherein if an option has a value of "False," the option is represented as a numerical "0" in contents of cells within the multidimensional electronic spreadsheet that reference the option.

22. (New) The system of claim 17, wherein the instructions cause the processor to reference at least one option of the plurality of options in one or a plurality of cells of the multidimensional electronic spreadsheet by:

selecting a cell from the plurality of cells of the multidimensional electronic spreadsheet; and

outputting an interactive user interface for applying one or more options of the plurality of options to the selected cell, wherein the interactive user interface includes a field for specifying an option to apply to the selected cell and a field for identifying a logical operation for applying the specified option to the selected cell.

23. (New) The system of claim 22, wherein the logical operation is selected from the set of logical operations including an Add logical operation meaning that the specified

option is applied with an additive effect, a Multiply logical operation meaning that the specified option is applied with a multiplicative effect, and an Or logical operation meaning that the specified option is applied with an exclusive effect.

24. (New) A computer usable medium having instructions recorded thereon, wherein the instructions, when executed on a computing device, cause the computing device to:

process a first user input, wherein the first user input defines one or a plurality of option combinations, each option combination comprising a plurality of options, wherein each option in the plurality of options has an associated identifier and an associated value;

access, in the computer system, a multidimensional electronic spreadsheet, wherein the multidimensional electronic spreadsheet includes at least one cell that references an identifier of at least one option of the plurality of options;

process a second user input, wherein the second user input selects a first source cell range of the multidimensional electronic spreadsheet and a destination cell range of the multidimensional electronic spreadsheet;

process a third user input identifying an operation to execute, wherein the operation to execute is either a copy and paste operation, or a cut and paste operation; and

perform the identified operation, wherein performing the identified operation comprises:

analyzing the first source cell range, for each defined option combination, to determine if at least one cell in the first source cell range comprises a reference to one or more options of the plurality of options of the defined option combination; and

for each option combination in which the first source cell range has at least one cell that references one or more options of the plurality of options of the defined option combination, performing the following operations:

computing a content of each cell within the first source cell range to thereby generate a second source cell range, wherein contents of the at least one cell are computed according to the referenced one or more options of the plurality of options based on a corresponding value associated with the referenced one or more options defined in a current option combination;

creating a version instance of the destination cell range in the
multidimensional electronic spreadsheet; and
copying the second source range of cells into the version instance.